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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,199	11/26/2003	Louis L. Hsu	FIS920030320US1	1198

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INTERNATIONAL BUSINESS MACHINES CORPORATION  
DEPT. 18G  
BLDG. 300-482  
2070 ROUTE 52  
HOPEWELL JUNCTION, NY 12533

EXAMINER

LE, DON P

ART UNIT PAPER NUMBER

2819

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/707,199

Applicant(s)

HSU ET AL.

Examiner

Don P. Le

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 16, 17, 19, 20, 22, 23 and 26-28 is/are rejected.
- 7) ☒ Claim(s) 8-15, 18, 21, 24, 25, 29, 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/26/03

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 16, 17, 22, 23, 26 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Hsu et al. (US 6,680,681).

3. The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

4. With respect to claim 1, figures 1-16 of Hsu teaches A data transmitter, comprising:

an adaptive finite impulse response (FIR) driver having a plurality of taps (108) to which coefficients having updateable are applied, said FIR driver having a transfer function between an input stream of data bits and an output stream of data bits such that each data bit output from said FIR driver has an amplitude adjusted as a function of the values of a plurality of the data bits of the input stream, and the values of the coefficients (inherent given that a system will have a transfer function); and

rewriteable non-volatile storage, operable to be rewritten with control information representing the values of the coefficients updated during operation of said FIR driver, such that said updated values are applied to said taps from the control information stored in said rewriteable non-volatile storage (see column 1, lines 35-40, flash memory are used in FIR transmitter).

5. With respect to claim 2, Hsu teaches the rewriteable storage is operable to be rewritten with the control information in response to updating the values of the coefficients (see column 1, lines 30-45).

6. With respect to claim 3, Hsu teaches the coefficients are applied to the taps of said FIR driver as currents having magnitudes adjustable in relation to the control information (see column 4, lines 5-20).

7. With respect to claim 4, Hsu the output stream of data bits is a serial stream and said FIR driver outputs the output stream of data bits as differential signals.

8. With respect to claims 16, 17, 22, 23, 26 and 27 the methods therein are inherent given the apparatus of Hsu as shown in the above rejections.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 5-7, 19, 20, 27 and 28 are rejected under 35 U.S.C. 103(a) as being obvious over Hsu (US 6,680,681).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

11. With respect to claims 5, 19 and 27, the apparatus as disclosed in the Hsu reference does not specifically show the nonvolatile memory from a group as claimed by applicant. However, it is notoriously well known in the art that non-volatile memory can be flash memory. It would have been obvious to one of ordinary skill of art at the time the invention was made to have used flash memory as non-volatile memory in the Hsu apparatus for the purpose of storing information.

12. With respect to claims 6, 20 and 28, the apparatus of Hsu discloses the memory is part of the integrated circuit.

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13. With respect to claim 7, it would have been obvious to one of ordinary skill of art at the time the invention was made to have the memory of Hsu as a separate package as a matter of design choice for design purpose, since this does not affect the function of the circuit.

***Allowable Subject Matter***

14. Claims 8-15, 18, 21, 24, 25, 29 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is an examiner's statement of reasons for allowance:

With respect to claims 8, 18 and 21, the prior art does not teach a register to receive and hold the control information stored in the non-volatile memory.

With respect to claims 10, 12, 24, 25, 29 and 30, the prior art does not teach a termination network as claimed.

With respect to claim 15, the prior art does not teach a power adjustment unit.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

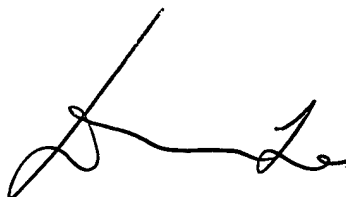
16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Don P. Le whose telephone number is 571-272-1806. The examiner can normally be reached on 7AM - 5PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Tokar can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

4/26/2005

A handwritten signature in black ink, appearing to read 'DON LE', with a stylized flourish at the end.

**DON LE**  
**PRIMARY EXAMINER**